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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/090,476	03/04/2002	Noriyoshi Nishiyama	MATS:037	5054
ROSSI & ASSOCIATES P.O. BOX 826 Ashburn, VA 20146-0826			EXAMINER PHAM, LEDA T	
			ART UNIT 2834	PAPER NUMBER

DATE MAILED: 06/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/090,476

Applicant(s)

NISHIYAMA ET AL.

Examiner

Leda T. Pham

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 March 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. This office action is in response to Amendment filed on 5/4/05.
2. Claims 1 – 18 are presented for examination.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1 – 4, 7 – 11, 14 – 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takeuchi (U.S. Patent No. 5,583,387) in view of Hirano et al. (U.S. Patent No. 5,729,072).

Regarding to claim 1, 8 and 15, Takeuchi teaches a motor (figure 2) comprising a stator formed by assembling a plurality of divided stator members having teeth (11), and a rotor facing said stator (not show) wherein each one of the divided stator members is formed by laminating a plurality of core sheets and bonding at least parts of end faces at an inner rim (12) of the divided stator members along a laminating direction of the core sheets with bonding by laser, and wherein the end face comprising the surface of a core sheet that when the divided stator members are assembled to form the stator, either faces the rotor or forms an outer surface of the stator member facing opposite to the rotor (figure 1). However, Takeuchi fails to teach the core sheets bonding by an adhesive.

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Hirano teaches a motor (figure 1) having a stator with the core sheets bonding by welding, or adhesive bonding, or applying an annular member (see abstract) for ensuring the stator rigidity.

Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Takeuchi's stator with bonding adhesive as taught by Hirano. Doing so would ensure the stator rigidity. Furthermore, those skilled in the art would know that using laser welding or bonding by an adhesive of laminating divided stators together is well known in the art to ensure the stator rigidity.

Regarding to claim 2 and claim 9, Hirano teaches the motor wherein the laminated end faces (16) of each one of the divided stator members are welded to fix the core sheets with each other at parts of the teeth except the laminated end faces facing said rotor (figure 1).

Regarding to claim 3 and claim 10, Takeuchi teaches the motor wherein laminated end faces of each one of the divided stator members (11) are welded to fix the core sheets with each other at back faces of the teeth (17, figure 2).

Regarding to claim 4 and claim 11, Takeuchi teaches the motor further comprising a welding section (17) for linking the divided stator members adjacent to each other by welding (figure 2).

Regarding to claim 7 and claim 14, Takeuchi teaches the motor wherein the teeth are wound with conductive windings (16) in a concentrated manner via insulators (15, figure 1).

Regarding to claim 16 - 17, Takeuchi teaches the claim invention except for the inner rim is bonded. However, Hirano teaches in his invention that welding may be replaced by adhesive bonding (see abstract). Thus, it would have been obvious to one of ordinary skill in the art at the

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time of the invention was made to bond the inner rim of the stator as taught by Hirano, since Hirano states in the abstract that such modification would construct an integral structure stator with rigidity.

Regarding to claim 18, Takeuchi teaches the stator members are welded together to form the stator (figure 2).

5. Claims 5 - 6, 12 - 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Takeuchi and Hirano as applied to claim 1 and claim 8 above, and further in view of Torossian et al. (U.S. Patent No. 4,103,195).

Regarding to claim 5 and claim 12, the combination of Takeuchi and Hirano teaches the claimed invention except for the added limitations a non-bonding section providing near said welding section to block the adhesive from infiltrating around said welding section.

Torossian teaches the laminating stator core having a non-bonding section providing near said welding section to provide uniform separation and insulation between the individual segment (see abstract).

Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the non-bonding section in the stator core as taught by Torossian for the purpose of provide uniform separation and insulation between the individual segment.

Regarding to claim 6 and claim 13, Torossian discloses the claimed invention except for the non-bonding section coating with water and oil repellent material. It would have been obvious to one having ordinary skill in the art at the time the invention was made to select water and oil repellent material to be the non-bonding section in the stator core, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its

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suitability of the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

Response to Arguments

6. Applicant's arguments filed 5/4/05 have been fully considered but they are not persuasive. The arguments are not persuasive because the combination of Takeuchi and Hirano teaches bonding the inner or outer end face along a laminating direction of the core sheets with an adhesive.

Regarding to applicant's argument that "the combination proposed by the examiner would not have taught bonding the inner or outer end face along a laminating direction of the core sheets with an adhesive to join the core sheets of each divided stator member", examiner disagrees with that because Takeuchi does teach bonding the inner or outer end face (12, figure 1) along a laminating direction of the core sheets (11) to join the core sheets of each divided stator member, however, Takeuchi teaches the method to join core sheets together by laser welding. Hirano also teaches joining core sheets together by any one of welding, adhesive bonding, or applying an annular member. Therefore, it would be obvious to one having skill in the art at the time the invention was made to apply the method of bonding core sheets together by an adhesive taught by Hirano to Takeuchi's stator.

7. In response to applicant's argument that there is no suggestion, motivation to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071,

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5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Hirano teaches the laminated iron cores are made integral by welding, boding, or applying an annular member to obtain the necessary rigidity of the stator (line 55 – 56, column 2).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leda T. Pham whose telephone number is (571) 272-2032. The examiner can normally be reached on M-F (8:30-6:00) first Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on (571) 272-2044. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Leda T. Pham
Examiner
Art Unit 2834

LTP
May 26, 2005


DARREN SCHUBERG
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800